

AMENDMENTS

IN THE CLAIMS

Please enter the following set of claims:

1. (Currently Amended) A speech query recognition system comprising:
a speech recognition engine for generating recognized words taken from an articulated speech utterance; and
a natural language engine configured for processing said recognized words to generate at least two different types of search predicates for said articulated speech utterance;
wherein said search predicates correspond to logical operators to be satisfied by a potential recognition match;
a query formulation engine adapted to convert said recognized words and said search predicates into a structured query suitable for locating a set of one or more corresponding recognized matches for said articulated speech utterance; and
said natural language engine further being configured for processing said set of one or more corresponding recognized matches to determine a final match for said articulated speech utterance using both semantic decoding and statistical based processing performed on said recognized words;
wherein said semantic decoding is performed on entire word sentences contained in said articulated speech utterance to determine semantic variants of said word sentences in said one or more corresponding recognized matches, said semantic decoding being based on a term frequency calculation, which term frequency calculation is based on calculating a lexical distance between each word in said recognized words with each word of one or more topic query entries using a lexical dictionary.
2. (Previously Presented) The system of claim 1, wherein said query formulation engine generates a first level query to a set of electronic records using said recognized words alone, and further customizes said first level query using said search predicates to generate a second level query to said set of electronic records.

3. (Original) The system of claim 2, wherein said natural language operates to generate said search predicates during a time when said query formulation engine generates said first level query.

4. (Canceled).

5. (Original) The system of claim 1, wherein said natural language engines uses a set of context parameters for generating said search predicates.

6. (Original) The system of claim 1, wherein said speech recognition engine, said natural language engine, and said query formulation engine are implemented as routines executing on a server computing system.

7. (Original) The system of claim 1, wherein said statistical based processing includes an operation for determining noun-phrases in said speech utterance.

8. (Original) The system of claim 1, wherein said natural language engine compares noun-phrases of said set of potential matches with noun-phrases of said speech utterance to determine said final match.

9. (Original) The system of claim 1, wherein said final match is determined in real-time.

10. (Original) The system of claim 9, wherein said speech utterance can correspond to one of more than 100 potential corresponding potential matches, and said final match is used for determining an articulated answer to said speech utterance in less than 10 seconds.

11. (Original) The system of claim 1, wherein said speech recognition is distributed across a client-server architecture.

12. (Previously Presented) The system of claim 11, wherein said client generates an amount of speech data that is optimized on a case by case basis to reduce recognition latencies.

13. (Original) The system of claim 1, wherein said recognized speech utterance is used for controlling a web page.

14. (Original) The system of claim 1, wherein said structured query is a full text query containing SQL search predicates.

15. (Original) The system of claim 1, wherein said corresponding potential matches are retrieved from a relational database that is updated asynchronously to reduce retrieval latency.

16. – 21. (Canceled).

22. (Currently Amended) A method of recognizing a speech query comprising the steps of:

- (a) recognizing text in an articulated speech utterance; and
- (b) processing said recognized text to generate at least two different types of search predicates for said articulate speech utterance;
wherein said search predicates correspond to logical operators to be satisfied by a potential recognition match;
- (c) generating a query to identify a potential match for said speech utterance, said query being based on said recognized text and said search predicates;
- (d) determining a final match for said speech utterance by comparing any potential matches identified by said query with said articulated speech utterance;
wherein both semantic decoding and statistical based processing operations are used to determine said final match;
further wherein said semantic decoding is performed on entire word sentences contained in said articulated speech utterance to determine semantic variants of said word

sentences in said potential matches, and is based on a combined metric that includes term frequency, semantic coverage, and semantic distance, the semantic decoding using a lexical dictionary.

23. (Original) The method of claim 22, further including a step: (e) retrieving a matching response for said final match, which matching response is provided in audible form.

24. (Original) The method of claim 22, wherein steps (b) and (c) overlap in time.

25. (Original) The method of claim 24, wherein step (c) includes two sub-steps, including a step (c)' wherein a preliminary query is generated based on said recognized text, and a step (c)'' wherein a final query is generated based on said preliminary query and said search predicates.

26. (Original) The method of claim 22, wherein said final match is determined by comparing noun-phrases of said speech utterance and said potential matches.

27. (Original) The method of claim 22, wherein step (a) occurs across a distributed computing platform, including a client device and a server device.

28. (Original) The method of claim 22, wherein steps (a) to (d) occur simultaneously across multiple servers in response to a speech utterance from a single client device.

29. (Previously presented) The method of claim 22, wherein both hyponyms and hypernyms are used during said semantic decoding.

30. (Previously presented) The method of claim 22, wherein said final match is also based on evaluating one or more coefficient matrices created to compare an N word

length utterance with each of said one or more corresponding recognized matches having one or more variable word lengths.

31. (Previously presented) The method of claim 22, wherein said final match is also based on evaluating a degree of coverage of N words presented in said utterance with each of said one or more corresponding recognized matches having one or more variable word lengths.

32. (Previously presented) The system of claim 1, wherein both hyponyms and hypernyms are used for semantic decoding.

33. (Previously presented) The system of claim 1, wherein said final match is also based on evaluating one or more coefficient matrices created to compare an N word length utterance with each of said one or more corresponding recognized matches having one or more variable word lengths.

34. (Previously presented) The system of claim 1, wherein said final match is also based on evaluating a degree of coverage of N words presented in said utterance with each of said one or more corresponding recognized matches having one or more variable word lengths.

35. (New) A method for recognizing a speech query, comprising:
recognizing text in an articulated speech utterance;
processing said recognized text to generate at least two different types of search predicates for said articulate speech utterance, the search predicates corresponding to logical operators to be satisfied by a potential recognition match;
generating a query to identify a potential match for the speech utterance, said query being based on the recognized text and the search predicates; and
determining a final match for said speech utterance by comparing any potential matches identified by the query with the articulated speech utterance, the comparing including

comparing word phrases in the potential matches identified by the query with word phrases in the articulated speech utterance, and

searching for a best semantic match between the potential matches identified by the query and the articulated speech utterance by calculating a combined semantic metric including term frequency, semantic coverage, and semantic distance using a lexical dictionary.